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EXAMINER

TRETTEL, MICHAEL

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HANS ERIK SCHMIDT

Appeal 2008-0005
Application 10/755,755
Technology Center 3600

Decided: February 20, 2008

Before DEMETRA J. MILLS, LORA M. GREEN, and
RICHARD M. LEOVITZ, *Administrative Patent Judges*.

GREEN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claim 2. We have jurisdiction under 35 U.S.C. § 6(b). Claim 2 reads as follows:

2. A sleeping device, such as a pillow, mattress or quilt, for minimizing temperature variations during sleep, wherein the sleeping device comprises a first layer (113, 121, 131) of a phase change material having temperature regulating properties and a second layer of down filling (111, 123, 129).

The Examiner relies on the following reference:

Buckley US 5,722,482 Mar. 3, 1998

We affirm.

DISCUSSION

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being obvious over Buckley.

Buckley is cited for teaching a thermal control device formed from a layer comprising an integrated PCM material (a phase change material having temperature regulating properties) with at least one additional layer of insulating material (Answer 4). The device may be formed into a blanket, such as for thermal control of a febrile patient (*id.*). Buckley is also cited for teaching that the insulating layer may be formed from a thermally insulating layer such as foam (*id.*). The Examiner

takes notice that while plastic foam is specified as being the preferred material, a large class of materials are available which qualify as insulating materials. Such materials include but are not limited to down, feathers, textiles such as cotton or polyester materials, wool, latex foams, and so forth.^[1] Because the equivalence of these insulating materials is well known within the art it would have been obvious to the skilled artisan to have used any one of these equivalent materials such as

¹ The Examiner cites Jones (U.S. Patent No. 4,706,304, issued November 17, 1987) and Novinger (U.S. Patent No. 4,479,270, issued October 30, 1984) to support that foam and down are both known for their use as insulating materials (Answer 5-6).

down as one of the insulating layers A, C in the Buckley thermal control device.

(*Id.*)

The burden is on the examiner to set forth a prima facie case of obviousness. *In re Fine*, 837 F.2d 1071, 1074 (Fed. Cir. 1988). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) secondary considerations of nonobviousness, if any. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). The Supreme Court has recently emphasized that “the [obviousness] analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR Int’l v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007). “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* at 1739. Moreover, an “[e]xpress suggestion to substitute one equivalent for another need not be present to render such substitution obvious.” *In re Fout*, 675 F.2d 297, 301 (CCPA 1982).

Appellant argues that the Examiner “has not set out a motivation to modify the teachings of Buckley so as to render obvious the claimed invention.” (Br. 5.) According to Appellant, Buckley does not teach the combination of PCM with down filling as in claim 2, and the “Examiner has made no demonstration of how the Buckley reference teaches potential modifications of its disclosed plastic foam insulating layers to encompass

such a large and disparate class of materials possessing widely varying physical characteristics.” (*Id.* at 6.) Thus, at most, Appellants assert, it would merely be obvious to try to use down instead of foam (*id.*).

As to motivation to modify the teachings of Buckley as suggested by the Examiner, the Supreme Court in *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739 (2007), rejected a rigid application of the teaching-suggestion-motivation test. The Court recognized that it is often necessary to look at the interrelated teaches of multiple references; the effects of demands of the marketplace; and the background knowledge possessed by a person of ordinary skill, “all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed.” *Id.* at 1740-41. Moreover, the “obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents.” *Id.* at 1741. Finally, one “of the ways in which a patent’s subject matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent’s claims.” *Id.* at 1742.

In this case, foam and down are both known insulating materials (see fn.2 *supra*), and Appellant has not provided evidence that down would not be expected to act as an insulating material when used in the non-PCM insulating layers taught by Buckley. In addition, this is not an “obvious to try” situation, as the rejection just substitutes one known insulating material, down, for the known insulating material taught by the reference, foam. Moreover, while Buckley teaches that foam is preferred, all that is required

is that the material act as a thermal insulator (*see* Buckley, col. 4, ll. 41-45), and down is a well known thermal insulator.

Appellant argues further that the Examiner has not established a reasonable expectation of success for arriving at the claimed invention (Br. 6). Appellant asserts that while the Examiner suggests that the use of a sleeping device is inherently anticipated by Buckley, the Examiner “has not demonstrated how the use of PCM clothing materials designed for use in extreme temperature environments and in conjunction with foam insulating materials would inherently perform the same function as down filling in increasing the functionality of the PCM layer.” (*Id.* at 7.)

Buckley teaches that thermal material of the invention may be fashioned into garments or other articles, such as blankets, that can be worn for their thermal properties (col. 2, ll. 52-56; *see also* claim 9). Buckley teaches further that the material will have a great many uses in everyday items (col. 21, lines 34-35), and that it can be used to accommodate changes in metabolic rate in constant or changing environmental conditions (col. 10, ll. 12-14). Thus, it would have been obvious to the ordinary artisan, reading the disclosure of Buckley, that the material could be used as a blanket while sleeping. As noted by the Court in *KSR*, “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton.” 127 S.Ct. at 1742.

CONCLUSION

In summary, we find that the Examiner has set forth a prima facie case of obviousness, and since Appellant has not provided adequate evidence or arguments to rebut it, the rejection of claim 2 under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Buckley is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

Ssc:

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